

IN THE CLAIMS:

Cancel claims 4 and 5.

Amend claims 1, 6, 10, 14, 16, and 18 as set forth below:

1. (currently amended) A disk device, comprising:

a magnetic disk for storing data and having an axis of rotation, an outer perimeter, and a radial surface extending therebetween;

an enclosure for containing the magnetic disk and having a surface; and

a local magnetic field generator provided in the enclosure for generating a local magnetic field when the enclosure is set in an external magnetic field, the local magnetic field generator being located exclusively radially inboard of the outer perimeter of the magnetic disk between the outer perimeter and the axis of the magnetic disk; and wherein

the local magnetic field generator extends from the surface of the enclosure and extends axially toward the radial surface of the magnetic disk such that the local magnetic field generator is axially closer to the magnetic disk than the surface of the enclosure, and the local magnetic field is generated from the enclosure toward the magnetic disk.

2. (canceled)

3. (original) The disk device according to claim 1, wherein the local magnetic field has a main component parallel to a surface of the magnetic disk in an area where the magnetic disk is located.

4. (canceled)

5. (canceled)

6. (currently amended) A disk device, comprising:

a magnetic disk for storing data having an axis of rotation, an outer perimeter, and a radial surface extending therebetween;

an actuator having a magnetic head for reading data from and writing data to the magnetic disk;

an enclosure containing and surrounding the magnetic disk and the actuator and having a surface that is substantially parallel to the radial surface of the magnetic disk; [[and]]

a pair of protrusions mounted to and extending axially from the surface of the enclosure facing the magnetic disk such that the protrusions are axially closer to the magnetic disk than the surface of the enclosure, wherein the protrusions are radially spaced apart from each other and composed of soft magnetic material formed toward the magnetic disk and are spaced apart from the magnetic head[.]; and

the protrusions being located exclusively radially inboard of the outer perimeter of the magnetic disk between the outer perimeter and the axis of the magnetic disk.

7. (original) The disk device according to claim 6, wherein the pair of protrusions is provided in a position corresponding to an inner circumference side of the magnetic disk.

8. (original) The disk device according to claim 6, wherein the enclosure includes a box-like base having an opening part, and a top cover for covering the opening part of the base, and the pair of protrusions is provided on the top cover.

9. (original) The disk device according to claim 6, wherein the pair of protrusions is located in a circumferential direction of the magnetic disk while maintaining a predetermined gap therebetween.

10. (currently amended) A disk device for storing and reading data, comprising:

a magnetic disk for storing data and having an axis of rotation, an outer perimeter, and a radial surface extending therebetween;

an actuator having a magnetic head for reading data from and writing data to the magnetic disk;

an enclosure for containing the magnetic disk and the actuator, wherein at least one surface of the enclosure facing the magnetic disk is parallel to the radial surface of the magnetic disk and composed of soft magnetic material; and

a magnetic gap formed on said at least one surface of the enclosure between a pair of generally rectangular, radially spaced-apart protrusions that extend axially away from said at least one surface of the enclosure, wherein the pair of protrusions are discontinuous with the magnetic head of the actuator and axially closer to the radial surface of the magnetic disk than said at least one surface[.]; and

the pair of protrusions being located exclusively radially inboard of the outer perimeter of the magnetic disk between the outer perimeter and the axis of the magnetic disk.

11. (original) The disk device according to claim 10, wherein the magnetic gap is a vacancy formed in the enclosure composed of the soft magnetic material.

12. (original) The disk device according to claim 11, wherein a magnetic circuit generating magnetic flux toward the magnetic disk is formed around the vacancy.

13. (original) The disk device according to claim 12, wherein the magnetic circuit is integrally formed with the enclosure as a single piece.

14. (currently amended) A disk device, comprising:

a disk-like storage medium having an axis of rotation and a radial surface with a magnetic film having a predetermined coercive force;

an enclosure case containing the disk-like storage medium and having a top cover; and

a magnetic field generator protruding from a surface of the top cover and facing toward the radial surface of the disk-like storage medium for forming a magnetic field with a magnetic gradient that is steeper than that of an external magnetic field when the enclosure case is set in the external magnetic field; and wherein

the magnetic field generator comprises a pair of protrusions that are bent from the surface of the top cover axially toward the radial surface of the disk-like storage medium, such that the pair of protrusions are axially closer to the radial surface than the surface of the top cover.

15. (original) The disk device according to claim 14, wherein intensity of the magnetic field formed by the magnetic field generator is stronger than the predetermined coercive force of the disk-like storage medium.

16. (currently amended) A system for erasing data in a disk device for storing and reading data, comprising:

a magnetic disk having an axis of rotation and a radial surface for storing data;

an actuator having a magnetic head for reading data from and writing data to the magnetic disk;

an enclosure for containing the magnetic disk and the actuator, the enclosure having a top cover with a radial surface facing the radial surface of the magnetic disk that is substantially parallel to the radial surface of the magnetic disk and is composed of soft magnetic material;

an external magnet located outside an exterior surface of the enclosure; and

a convex portion facing the magnetic disk is formed on said radial surface of the top cover and is discontinuous with respect to the magnetic head on the actuator, the convex portion being located axially closer to the magnetic disk than the top cover of the enclosure;

leakage flux from the convex portion due to the external magnet arrives farther than leakage flux from another part of said at least one surface when the disk device is set in an external magnetic field generated by the external magnet; and

the convex portion comprises an indentation having inclined segments that are formed at acute angles with respect to the radial surface of the top cover, and a planar offset segment that is parallel to the radial surfaces of the top cover and the magnetic disk.

17. (canceled)

18. (currently amended) A data-erasing method for erasing data stored in a magnetic disk in a disk device, comprising the steps of:

providing a disk device with a magnetic disk having an axis of rotation and an outer perimeter, and being located inside an enclosure;

providing both the magnetic disk and the enclosure with radial surfaces that are substantially parallel to each other;

positioning a protrusion on the radial surface of the enclosure exclusively between the axis and the outer perimeter of the magnetic disk, such that the protrusion is axially closer to the radial surface of the disk than the radial surface of the enclosure;

providing the protrusion with two segments that are radially spaced apart from each other;

generating an external magnetic field on an exterior of the enclosure such that the external magnetic field at least partially penetrates the enclosure;

inserting the disk device into the external magnetic field; and

erasing data stored in the magnetic disk by generating an internal magnetic field with a magnetic gradient that is steeper than that of the external magnetic field inside the disk device with the segments of the protrusion that are mounted to the radial surface of the enclosure.